

CHAPTER 6 CONSTRUCTION TYPES

SECTION 601 GENERAL

601.1 Scope. Provisions of this chapter shall govern the classification of construction type by materials and fire resistance of its elements and the use of more than one construction type in a building.

601.2 Classification by type of construction

601.2.1 Every building shall be classified by the building official into one of the types of construction as set forth in this section.

Type I	Type V
Type II	1-Hour Protected
Type III	Unprotected
Type IV	Type VI
1-Hour Protected	1-Hour Protected
Unprotected	Unprotected

601.2.2 Materials for any one of the six types of construction may be used as specified in Table 600, or as permitted in this chapter.

601.3 Fire resistance requirements

601.3.1 All fire resistance requirements are expressed in terms of the number of hours of satisfactory performance in accordance with ASTM E 119.

601.3.2 Construction required to have a fire resistance rating shall be supported by construction of equal or greater fire resistance.

Exception: In Types IV Unprotected, V Unprotected and VI Unprotected construction, structural elements supporting exit access corridor walls and tenant separation walls of not more than one (1) hour fire resistance need not be rated provided a fire resistance rating is not required by other provisions of this code.

601.4 Materials and construction approved for fire resistance

601.4.1 The degree of fire resistance and the materials, assemblies and constructions providing such resistance shall be defined in Chapter 7 of this code, except that other materials, assemblies and constructions shall be approved, provided test data of a recognized engineering or testing laboratory are submitted, establishing that they develop the required fire resistance rating under tests made in accordance with ASTM E 119 or based on calculations and accepted engineering practice as set forth in 709.

601.4.2 Where structural requirements necessitate assemblies providing greater fire resistance than specified in this chapter, such structural requirements shall govern.

SECTION 602 DEFINITIONS

For definitions, see Chapter 2.

SECTION 603 TYPE I CONSTRUCTION

Type I is construction in which the structural members including exterior walls, interior bearing walls, columns, beams, girders, trusses, arches, floors, and roofs are of non-combustible materials and are protected so as to have fire resistance not less than that specified for the structural elements as specified in Table 600. For interior nonbearing partition requirements, see 704.2. For provisions governing combustibles in concealed spaces, see 707.

SECTION 604 TYPE II CONSTRUCTION

Type II is construction in which the structural members including exterior walls, interior bearing walls, columns, beams, girders, trusses, arches, floors and roofs are of non-combustible materials and are protected so as to have fire resistance not less than that specified for the structural elements as specified in Table 600. For interior nonbearing partition requirements, see 704.2. For provisions governing combustibles in concealed spaces, see 707.

SECTION 605 TYPE III CONSTRUCTION

605.1 General. Type III is construction in which fire resistance is attained by the sizes of heavy timber members (sawn or glued laminated) being not less than indicated in this section, or by providing fire resistance not less than one (1) hour where materials other than wood of heavy timber sizes are used; by the avoidance of concealed spaces under floors and roofs; by the use of approved fastenings, construction details and adhesives for structural members; and by providing the required degree of fire resistance in exterior and interior walls.

605.2 Columns

605.2.1 Wood columns may be sawn or glued laminated and shall be not less than eight (8) inches nominal in any dimension when supporting floor loads, and not less than six (6) inches nominal wide and eight (8) inches nominal deep when supporting roof and ceiling loads only.

SECTION 606 TYPE IV CONSTRUCTION

Type IV is construction in which the structural members including exterior walls, interior bearing walls, columns, beams, girders, trusses, arches, floors and roofs are of noncombustible materials. Type IV construction may be protected or unprotected. Fire resistance requirements for structural elements of Type IV construction shall be as specified in Table 600. For provisions governing combustibles in concealed spaces, see 707.

SECTION 607 TYPE V CONSTRUCTION

Type V is construction in which the exterior bearing and nonbearing walls are of noncombustible material and have fire resistance not less than that specified in Table 600; bearing portions of interior walls are of material permitted in Table 600, and have fire resistance not less than that specified in Table 600; and beams, girders, trusses, arches, floors, roofs, and interior framing are wholly or partly of wood or other approved materials and have fire resistance not less than that specified in Table 600. Type V construction may be either protected or unprotected. Fire resistance requirements for structural elements of Type V construction shall be as specified in Table 600.

SECTION 608 TYPE VI CONSTRUCTION

Type VI is construction in which the exterior bearing and nonbearing walls and partitions, beams, girders, trusses, arches, floors, and roofs and their supports are wholly or partly of wood or other approved materials. Type VI construction may be either protected or unprotected. Fire resistance requirements for structural elements of Type VI construction shall be as specified in Table 600.

SECTION 609 PARTITIONS

609.1 Bearing walls shall comply with the provisions of Chapter 6, but shall provide not less than the degree of fire resistance specified in Table 600.

609.2 Nonbearing partitions shall conform to 609.2.1 through 609.2.4 and have the fire resistance specified in Table 705.1.2 except as specified elsewhere in this code.

609.2.1 Type I and Type II construction. Partitions shall be constructed of noncombustible materials.

Exceptions:

1. Framing members may be of fire retardant treated wood.
2. Pocket doors and their frames may be of wood.

609.2.2 Type III construction. Partitions may be of any material permitted by this code.

609.2.3 Type IV construction. Partitions shall be constructed of noncombustible materials except that framing members of fire retardant treated wood may be used and pocket doors and their frames may be of wood. Partitions in one-story buildings only may be of any material permitted by this code. Partitions in fully sprinklered buildings, regardless of height, may be of any material permitted by this code.

609.2.4 Type V and Type VI construction. Partitions may be of any material permitted by this code.

SECTION 610 MIXED TYPES OF CONSTRUCTION

610.1 Area limitations. Where two or more types of construction not separated by fire walls occur in the same building, the area of the entire building shall not exceed the least area permitted based on occupancy for the types of construction used in the building.

610.2 Height limitations. Where two or more types of construction occur in the same building, the height of the entire building shall not exceed the least height permitted based on the occupancy for the types of construction used in the building.

610.3 Open parking structures. Open parking structures which comply with 411.3 may be constructed beneath other occupancies in buildings of mixed types of construction in accordance with the following:

1. The height and area of the open parking structure shall not exceed that permitted by Table 411.3.1 for the type of construction of the open parking structure.
2. The total height of the structure shall not exceed that allowed for its primary occupancy in accordance with 303 and Table 500.
3. The fire resistance of structural members within the open parking structure that support any part of the building above the open parking structure shall have the same or greater fire resistance as the supported type of construction. This provision applies to all columns; beams, girders, and trusses directly connected to the columns; and all other structural members which directly brace the columns.
4. The entire structure shall be of noncombustible construction.
5. Occupancy separations shall be maintained in accordance with 704.1.
6. All exits for the upper occupancy shall be protected to the exterior of the building in accordance with Chapter 10.